


PATENT

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Signature

Appl No. : 10/767,875 Confirmation No. 4124
Applicant : Young-Jun Kim, et al.
Filed : January 29, 2004
Title : METHOD OF PREPARING A NEGATIVE ELECTRODE FOR A
RECHARGEABLE LITHIUM BATTERY, METHOD OF FABRICATING
A RECHARGEABLE LITHIUM BATTERY AND A RECHARGEABLE
LITHIUM BATTERY

TC/A.U. : 1795
Examiner : Keith D. Walker

Docket No. : 51813/P849
Customer No. : 23363

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Post Office Box 7068
Pasadena, CA 91109-7068
February 22, 2008

Commissioner:

Applicant requests review of the final rejection of claims 10 and 12 in the above-identified application. No amendments are being filed with this Request. This Request is being filed with a Notice of Appeal. The review is requested for the reasons stated below.

Claims 10 and 12 have been rejected under 35 U.S.C. §102(b) as allegedly anticipated by, or in the alternative under 35 U.S.C. §103(a) as allegedly obvious over Idota (U.S. Patent No. 5,618,640). In maintaining these rejections, the examiner simply states that "Idota discloses a rechargeable lithium battery with a negative electrode consisting essentially of a carbonaceous material as the negative electrode active material." Office action, page 3. In addition, the examiner argues that applicant admitted that Idota teaches a negative electrode consisting

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essentially of a carbonaceous material and that the passage in Idota cited by applicant in the response filed on September 7, 2007 teaches a negative electrode consisting essentially of a carbonaceous material. Office action, page 4. However, applicant has not admitted that Idota teaches such a negative electrode, and the passage in Idota cited by applicant in the previous response does not teach such a negative electrode. Rather, in the September 7, 2007 response, applicant argued that although Idota appears to disclose a negative active material having some carbonaceous material, the Idota negative electrode does not *consist essentially of* the carbonaceous material, as recited in the present claims, and Idota expressly teaches away from the use of a negative electrode *consisting essentially of* a carbonaceous material.

The transitional phrase "consisting essentially of," used in claims 10 and 12, excludes those materials that would materially affect the basic and novel characteristics of the claimed invention. Idota discloses a negative active material in which the main component is a $M^1M^2_pM^4_q$ compound in which M^1 and M^2 may be Si, Ge, Sn, Pb, P, B, Al, As or Sb and M^4 may be O, S, Se or Te. See Column 4, lines 19-33. The addition of a $M^1M^2_pM^4_q$ compound to a carbonaceous negative active material, as claimed in the present application, would materially affect the characteristics of the claimed invention.

That the addition of a $M^1M^2_pM^4_q$ compound to a carbonaceous negative active material as present claim would materially affect the characteristics of the claimed invention is evidenced by the disclosure in Idota. At Column 1, lines 17-32, Idota notes that metallic lithium precipitates on carbonaceous negative active materials upon overcharge or rapid charge. In addition, Idota notes that carbonaceous materials have low density and low capacity per unit volume, thereby limiting the discharge capacity of the battery. In response to these limitations, Idota discloses the use of a $M^1M^2_pM^4_q$ compound as the main component of the negative active material. Given this disclosure, Idota expressly teaches away from a negative electrode consisting essentially of a carbonaceous material.

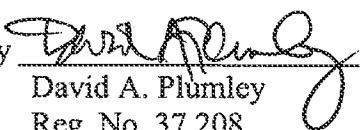
Claims 10 and 12 have also been interpreted as product-by-process claims by virtue of the limitations directed to the amount of gas generated during initial charging and discharging. Applicant disagrees with this characterization as the amount of gas generated is a property of the

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lithium battery and negative electrode, and the claimed negative electrode is not the product of any claimed process. As noted in M.P.E.P. §2173.05(p), a product-by-process claim is a "product claim that defines the claimed product in terms of the process by which it is made." In the present claims, the claimed product is the negative electrode, and no process of making the negative electrode is recited. Rather, a property of the negative electrode is recited (i.e., the amount of gas generated). As such, applicant submits that this interpretation of the claims is improper. Also, as Idota fails to teach or suggest the recited amounts of generated gas, claims 10 and 12 are allowable over Idota. Applicant also notes that the products, namely, the negative electrode and the rechargeable lithium battery, are allowable over Idota independent of this limitation, as discussed above.

In view of the above remarks, applicant submits that all of pending claims 10 and 12 are allowable over Idota. Accordingly, applicant respectfully requests reconsideration of the final rejection of the claims.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

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